



*It's All about Building a  
Better Product for Our Clients!*

# The Big Story is our *Controls!*

If you're in the market for air-cooled or water-cooled process chillers... then you must understand the **superior advantages** of **J&M Fluidics** controls over what other chiller manufacturers offer. This is big! This is what our clients are raving about. What **J&M Fluidics** offers in controls will give your chiller the "IQ" it deserves and **state-of-the-art performance & control** you need for today's critical process chiller applications! ...*"It's All about Building a Better Product for Our Clients"*.

*Please See Inside for Detailed Information about our Controls...*





# J&M Fluidics Chiller Control Features

**J&M Fluidics understands that controls play a critical part in how the process chiller performs!** Built into all of our chillers are controls that bring a higher level of performance, reliability and energy-efficiency. With “Greener” J&M chillers... energy consumption could be substantially reduced in some markets. Our controls include a user-friendly touch screen, data storage, email & phone alerts, remote connectivity, (BAS) integration, plug-in control relays, free software updates, and so much more.

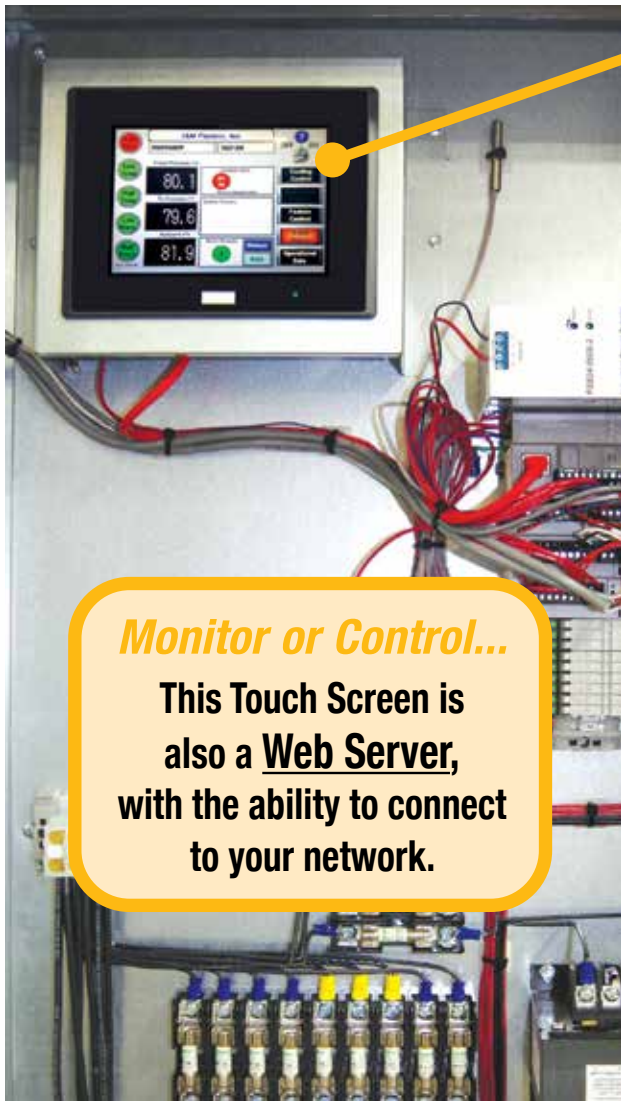
## J&M Touch Screen User Interface

Harness the power with an industrial quality “Human Machine Interface” (HMI) that communicates with the Pentra MicroSmart Programmable Logic Controller (PLC).

### Touch Screen Key Chiller Control Features:

- **USB update slot for IN-PLACE HMI and PLC software updates available from [jmchillers.com](http://jmchillers.com)**
- **Free Software Upgrades**
- **CE, UL Listed**
- **Monitor / Control your chiller from anywhere\***
- **4gb SD card in slot for data storage - Standard**
- **Ultra bright display screen with auto screen saver**
- **Real-time Pressure and Temperature readings**
- **Automatic COMPRESSOR Lag/Lead with FIVE operational modes**
- **Automatic SYSTEM PUMP Lag/Lead with FIVE operational modes**
- **Factory configured for ALL J&M's chiller options**

*\*Some network configuration required.*



### Monitor or Control...

This Touch Screen is also a **Web Server**, with the ability to connect to your network.



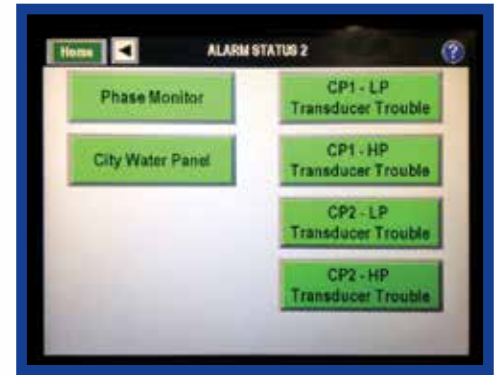
## J&M Touch Screen User Interface - Examples



● Chiller Main Operating Screen



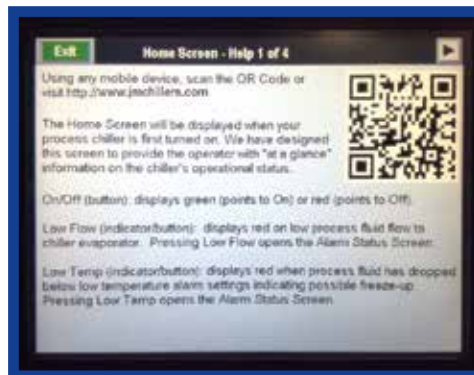
● Alarm Status Screen 1



● Alarm Status Screen 2



● Operational Data and Fault Log



● Tutorial and Help Screen



● Compressor Operation Status and Pressures

Have Questions... We are Here to Help!

(888) 539-1731



# J&M Fluidics Chiller Control Features

## J&M - Pentra Microsmart, Programmable Logic Controller (PLC)

**Best-In-Class PLC** now available for ALL J&M production chiller models. Factory installed and programmed into your next J&M Process Chiller. The **Pentra PLC** will seamlessly interface with our new HMI touch screen.

Pentra Key features include:

- **CE, UL Listed**
- **Highly accurate and fast performance**
- **Embedded Ethernet Port**
- **Modbus (Slave) TCP, RTU and ASCII for integration with most Building Automation Systems (BAS)**
- **Optional BacNet and LONWORKS communication protocols via third party gateway hardware**
- **Expandable I/O, ideal for custom chiller control projects**
- **I/O status indicators on Pentra and I/O modules for easy diagnostics**

### **IMPORTANT NOTE!**

Other chiller manufacturers use board-mounted relays... when they go bad, the entire circuit board must be replaced resulting in longer chiller downtime!

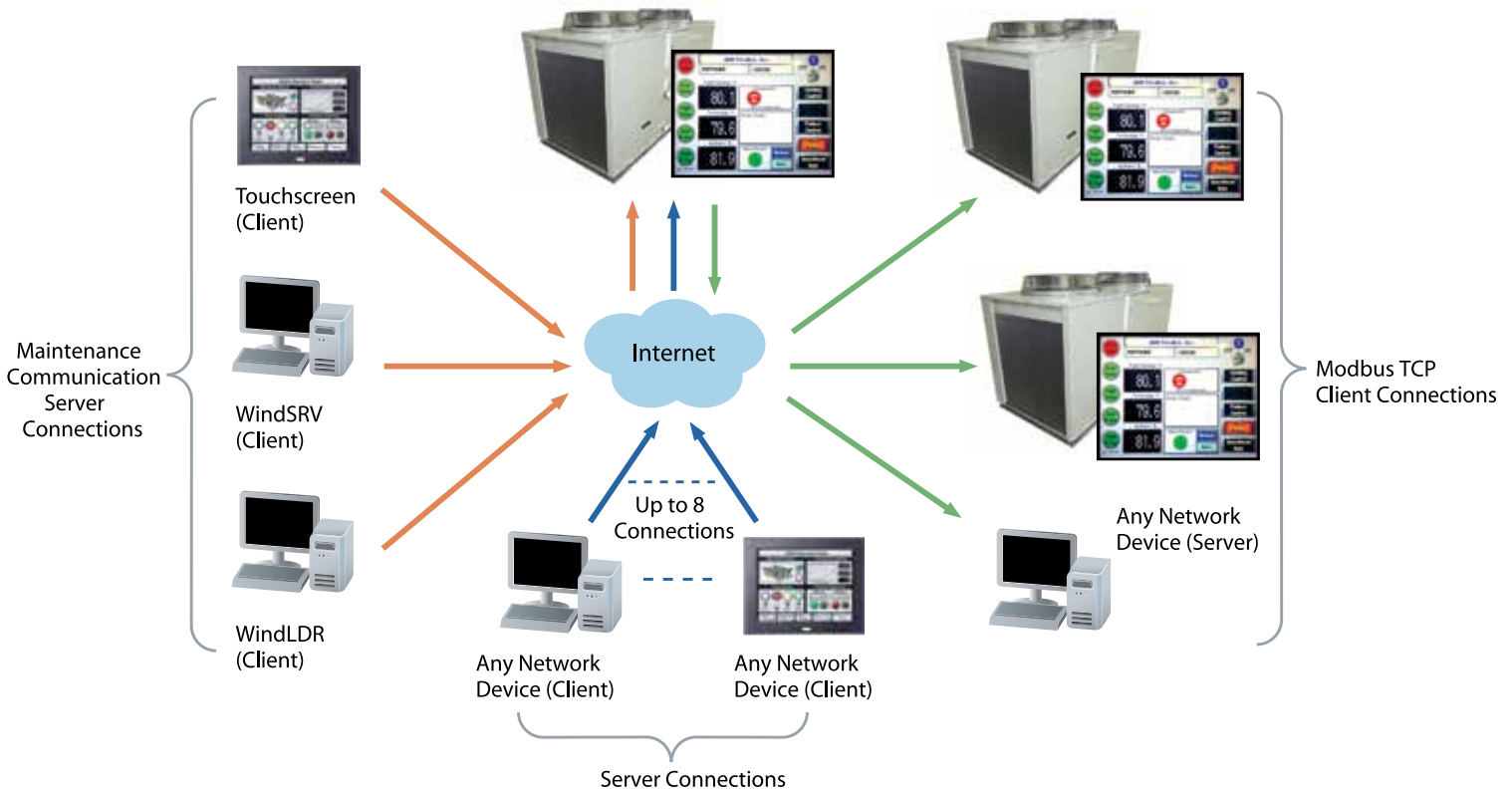
**J&M Fluidics** systems use **"Plugin" Control Relays** for quick easy replacement with much less downtime and cost!



## AVAILABLE NOW!

### Offering Extended Connectivity Options...

**Up to 14 Simultaneous Connections!** Using Maintenance Communication Server connections, up to 3 Client devices, such as OI touchscreen, WindLDR software and SCADA OPC server such as WindSRV (KepServerEx), can simultaneously communicate with your MicroSmart Pentra PLC. Using Server Connections, an additional 8 connections can be established and each connection can be defined as Maintenance, User Communication or Modbus TCP server protocol. On top of that, another 3 connections can be configured as Modbus TCP client protocol, with a maximum of 255 requests. Each request can be for different slave devices with different IP addresses on the network.



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# J&M Fluidics Chiller Control Features

## EXCITING AVAILABLE OPTIONS...



### VPN Secure Remote Connectivity



Front View

Virtual Private Networking (VPN) is used to connect a process chiller remotely over a secure network connection. A VPN can be used to remotely connect to a chiller via an Intranet or Internet connection. VPN typically does not require firewall configuration.

- Other Features:
1. Wired or wireless versions available.
  2. Ewon comes with NO monthly licence fees.  
All software included with the hardware pricing.



### BACnet Gateway and Router

The Babel Buster BB2 is a BACnet gateway and router. It may be used as either or both, in various ways for different applications. In its simplest form as a router, it will route a single MS/TP network to a single BACnet IP network. It may be used as a router to interconnect multiple BACnet MS/TP via IP networks. It may even be used to traverse NAT routers on a WAN connection to connect distant buildings via Internet.

## EXCITING AVAILABLE OPTIONS *(continued)*...



### Ethernet Connectivity

Industry tailored solutions for mission-critical applications. Reliable networks globally.

- **Industrial grade unmanaged network switching**
- **Connection Allows Interface with:**
  - BacNet gateway
  - LonWorks gateway
  - Building systems for remote monitor and chiller control
  - Remote SMTP services for text or email trouble alerts



### VLT<sup>®</sup> HVAC Drive

- **Energy efficient control of pumps and compressors**
- **Precise control of pressure and flow**
- **Ensures maximum economy and low running cost**
- **Standard interface with J&M software – this option can be added at anytime with hardware install**

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